

### **REMARKS/ARGUMENTS**

Entry of the foregoing amendment is respectfully requested for the purposes of placing the application in condition for allowance, or alternatively, in better condition for appeal.

Reconsideration is respectfully requested of the Final Office Action of August 4, 2009.

A request for a three-month extension of time, along with the associated fee, is filed herewith.

It is proposed to amend Claim 14 and to add new Claim 25 to better distinguish from the cited prior art as explained more fully below.

#### **Rejections Under 35 U.S.C. § 102(e)**

The rejection of Claims 14, 18 to 20, 22 and 23, under 35 U.S.C. § 102(e) as anticipated by *Wittpahl*, US 7,141,270 (assigned to the same assignee as herein) is traversed and reconsideration is respectfully requested.

Claim 14 has been amended to specify that this invention features a non-coated cathode gas diffusion layer. This results in a double layer anode and single layer cathode; see Figure 1.

Applicants respectfully submit that the claimed invention provides double-layer anode and single layer cathode MEUs with high power density and reduced precious metal loading. See e.g. [0020] of the US publication. The advantages of the claimed invention are striking and unexpected. Specifically, the instant invention allows the anode layer to be made with high layer thickness, high catalyst loading and high porosity. See e.g. [0026] of the US publication. The double layer anode design combined with the thin layer cathode allows catalyst layers to be thicker by a factor of 2 more than the cathode layer and catalyst loadings which are higher than, by a factor of 2.5, that on the cathode side. See e.g. [0027] of the US publication. These features lead to unexpected results, such as good bonding to the membrane, improved power density and

improved oxygen diffusion. See e.g. [0028] of the US publication. The double layer anode – single layer cathode structure of the claimed invention also unexpectedly allows high design flexibility. See e.g. [0025] of the US publication.

Applicants respectfully submit that *Wittpahl* '270 does not teach or suggest a process for manufacturing a MEU structure comprising a double layer anode or the unexpected advantages of such a MEU structure having a double layer anode. In contrast, *Wittpahl* discloses using double layer cathodes. See Figure 1 and the example shown in the reference as well as first production steps, in col. 7, line 46 et seq. In addition, since the present application is a CIP of *Wittpahl* '270, applicants respectfully request withdrawal of the rejection.

#### **Rejection Under 35 U.S.C. 103(a)**

Claims 14, 17 and 18 stand rejected under 35 U.S.C. 103(a) in view of *Tabata* et al. US 2002/0071980A1.

Claims 15 and 16 stand rejected under 35 U.S.C. 103(a) in view of *Tabata* et al. ('980) taken with *Yamashita* US 5,441,822.

Claim 17 stands rejected under 35 U.S.C. 103(a) in view of *Tabata* et al. ('980) taken with *Kindler* US 5,952,008.

Applicants respectfully request reconsideration based on the lack of disclosure in *Tabata* of a method including the step of providing a non-coated cathode gas diffusion membrane and the step of uniting the coated anode gas diffusion substrate and the non-coated cathode gas diffusion substrate with the ionomer membrane coated on both sides so that the anode side of the ionomer membrane faces the coated anode gas diffusion substrate and the cathode side of the ionomer membrane faces the non-coated cathode gas diffusion substrate.

In view of this lack of disclosure, it is respectfully submitted that the above references do not create *prima facie* obviousness of the claimed invention.

Withdrawal of these three rejections is respectfully requested.

**Priority Claim Under 37 C.F.R. 1.78(a)(3)**

Applicants claim the benefit of the filing date of copending application 10/308,491 filed December 3, 2002, and U.S. Patent 7,141,270 of which this application is a continuation-in-part.

The present application was amended on page 1 to make reference thereto and required by 37 C.F.R. 1.78(a)(3)(i).

The surcharge set forth in 37 C.F.R. 1.17(t) is filed herewith.

Applicants hereby state as required by 37 C.F.R. 1.78(a)(3)(iii) that the entire delay between the date the claim was due under 37 C.F.R. 1.78(a)(2)(ii) and the date the claim was filed was unintentional.

Favorable action at the Examiner's earliest convenience is respectfully requested.

Respectfully submitted,

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